N600X - Checking battery charging voltage

Is there a way to check the powersupply of the N600X?

On all earlier models you could measure the batteryvoltage and charge current to the battery.

On the N600x you don’t measure any voltage when the battery is disconnected.

On the N600X there is a microcontroller that shuts off the power supply when the battery voltage is too low to support functionality.

Therefore when you disconnect the battery the power will be shut off.

To measure the battery charging voltage, you can do the following:

- Measure voltage at the testpoint "ChgCtl" on the LPS. This is near U9.

Charging voltage = 7.72V - ChgCtl Voltage.

7.72V is the max charging voltage. The actual charging voltage is reduced depending on the output of the DAC, U9, to a min of 2.72V

So the voltage at test point "ChgCtl" should be between 7.72V and 2.72V depending on the battery voltage.

To measure the charging current:

- Measure voltage at the testpoint BATT_I. Charging current = (2.5V-BATT_I)/2

- I'm not sure how accurate this measurement is

- In general, If BATT_I < 2.5V, unit is charging; If BATT_I > 2.5V, unit is discharging.